

Long use of Reuter's works reveals him to be a meticulously careful worker. His 1884 Monograph is just one example of the permanency of his results—eighty years later it is still a clear-cut, definitive landmark. To accuse him of confusing so many forms so badly, even to not recognizing his own well-defined genus *Acomporis*, is not logical. It is more logical to doubt the results of the unknown hands which subsequently manipulated the Zetterstedt collection. Preparatorial help of unknown competency could simply have matched specimen labels with the printed record without consideration of the diagnostic characteristics. The proven prudence of Reuter's work habits, the unknown handling of the collection subsequent to Zetterstedt's time, and the fact that Reuter received study material from Zetterstedt himself, combine to mitigate against assuming a Reuter error.

The only conclusions we can reach are: (1) the so-called "syntypes" in the Lund collection should be considered mislabelled or misidentified; (2) the specimens examined by Reuter apparently have been overlooked or lost; and (3) that if neotypes are needed, they should be selected from Reuter's material to insure continuity of the eighty years usage based on his 1884 Monograph.

FURTHER COMMENTS ON SUPPRESSION OF SOME NAMES IN THE FAMILY BELONIDAE (PISCES). Z.N.(S.) 1723

(see volume 22, pages 325–329 and volume 23, pages 149–154)

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Additional comments are presented on several needlefish names that recently have been discussed in the *Bulletin* (Collette and Berry, 1966; Mees, 1966; Tortonese, 1967) and elsewhere (Mees, 1962, 1964; Collette and Berry, 1965) so that the Commission can have all the relevant material upon which to base its decision. Collette and Berry (1965) requested suppression of three names as *nomina oblita* under the provisions of Article 23 b. If action under the provisions of the 50-year rule is suspended, I believe it necessary to ask the Commission to suppress two names under the plenary powers. At least two of the names under discussion (*marina* and *crocodilus*) are of importance to parasitologists (working with copepods, trematodes, and cestodes) as well as to ichthyologists. The nomenclature of this family should be stabilized before completing manuscripts for an Atlantide Report (Collette and Parin, MS) and for "Fishes of the Western North Atlantic" (Collette MS). A summary of my opinions on the names for three species discussed by Collette and Berry (1966) and that for an additional species by Mees (1966) follows.

I. *Strongylura marina* (Walbaum)

Because it did not seem reasonable that a name totally unused for the 170 years after its description should replace the name usually used for the commonest species of western Atlantic needlefish, Collette and Berry (1966) applied to the Commission to suppress *houttuynii* in favour of *marina*, two names pertaining to the same species and described on the same page by Walbaum in 1792. The name *marina* is not only the name used by ichthyologists but is also the name used by parasitologists, for example by Linton in a series of papers on cestodes and trematodes from 1901 to 1940. Mees (1962) chose to ignore both provisions of Recommendation 24A—to "select the name that will best insure stability and universality of nomenclature" or, if neither name has this advantage, to "select the name that has precedence of position in the

work in question". In defence of his selection of *houuttuyni* over *marina* as "first reviser", Mees (1966) referred to the name *Esox timucu* Walbaum as another name commonly used in the western Atlantic and to the name *Belone senegalensis* Valenciennes, 1846 as being the name commonly used for *houuttuyni* in the eastern Atlantic. Both the eastern Atlantic *S. senegalensis* and the Caribbean species known as *S. timucu* are valid species. *S. marina* has only the right gonad developed while both *S. senegalensis* and *S. timucu* have the usual pair of gonads. The three species also differ in other characters, such as the number of predorsal scales (Collette and Parin, MS): 110–130, mean 122 in *S. senegalensis*; 129–185, mean 156 in *S. timucu*; and 213–304, mean 255 in *S. marina*.

II. *Platybelone argalus* (LeSueur)

The three main points made by Collette and Berry (1965) were: (1) the name *argalus* LeSueur, 1821 is the earliest name for this particular species; (2) the figure in the original description is clearly this species and could not be any other species, and (3) after Fowler (1919 and 1930) pointed out its applicability to the species, the name *argalus* has appeared several times in the literature. This is true both in the western Atlantic (e.g., Fowler, 1941; Berry and Rivas, 1962; Cervigón, 1966) and in the eastern Atlantic (e.g. Fowler, 1963; Postel, 1959; 1960; Blache, 1962). In addition, Parin (1967) has recently used *argalus* in the western Pacific and Indian oceans. Mees (1962, 1966) considered *argalus* to be a composite partly because the fin ray counts of D 16, A 19 given in the original description are rather high; however, I have examined two specimens with these counts. The problem involving the name *argalus* is thus a biological one; Mees considers the name a composite and I believe it is applicable to the species in question. Therefore the Commission should leave the question of which name to use for this species to ichthyologists.

III. *Tylosurus crocodilus* (Peron and LeSueur)

Collette and Berry (1966) applied to the Commission to suppress *Esox belone* Var. *Maris rubri* Bloch and Schneider, 1801 because this name had not been used in the more than 160 years after its original description (except for a mention of it by Valenciennes in 1846 in his account of *Belone crocodilus* in *Histoire Naturelle des Poissons*). The use of *Belona crocodila* Peron and LeSueur, 1821 was recommended because it is the next oldest available name and it has had extensive use in the literature. Mees (1962 : 45) wrote that "This does not mean, however, that I agree with Weber + de Beaufort and with all other modern authors, that now *Belone crocodila* LeSueur (1821) becomes the oldest name available for the species..." (emphasis added). Not only has the name *crocodila* had wide usage in the Indo-Pacific, as Collette and Berry (1965, 1966) previously noted, but it also has had wide usage in the eastern Atlantic in the last 30 years (e.g., Fowler, 1936; Poll, 1953; Cadenat, 1950, 1960; Collignon, Rossignol, and Roux, 1957; Postel, 1959, 1960; Blache, 1962). The name *crocodila* also has been used by parasitologists, for example by Capart (1953, 1959) and Delamare-Deboutteville and Nunes-Ruivo (1954) in the Atlantic and by Pillai (1961) in the Indian Ocean for parasitic copepods. I agree with Mees (1964) that subsequent workers have ignored names such as *maris rubri* because they were originally introduced as applying to varieties rather than to species and I believe that this lends further weight to the desirability of rejecting *maris rubri*. Furthermore, Parin (1967) has just shown that two species are involved under Mees' *Belone maris rubri*—*T. crocodilus* and *T. choram* (Rüppell).

IV. *Tylosurus acus* (Lacépède)

The two reasons Collette and Berry (1966) gave for advocating the use of the name *Sphyracna acus* Lacépède, 1803, for the Atlantic species of *Tylosurus* with a long snout and a high number of dorsal and anal fin rays and vertebrae were: (1) it is the earliest name applicable to the species; and (2) it is the name most often used in the western Atlantic. Mees (1966) pointed out that the trivial name *acus* has been used for two different species of needlefishes in the eastern Atlantic: *Belone acus*

Risso, 1826 (a junior synonym of *Esox belone* Linnaeus) and *Sphyraena acus* Lacépède, 1803. Mees stated that the use of *acus* Lacépède would lead to confusion in the European literature. This confusion only would result if other workers accept Mees' lumping of *Strongylura*, *Tylosurus*, and five other genera that I consider valid with *Belone* (compare Mees, 1962, 1964 with Collette and Berry, 1965 and with Collette, 1966). The name *acus* Lacépède has frequently been used for this species of *Tylosurus* (sometimes as *Strongylura*) in the eastern Atlantic (e.g., Regan, 1911; Fowler, 1936; Tortonese, 1938; Lozano Rey, 1947; Ben-Tuvia, 1953; Postel, 1959, 1960; Blache, 1962) and recently by Parin (1967) in the western Pacific and Indian oceans. Moreover, *acus* Risso, 1826 was permanently taken out of consideration when it was replaced by *gracilis* Lowe, 1839. Mees (1966) further argued for *imperialis* Rafinesque, 1810 by referring to Lozano Rey (1947 : 603) who gave the Spanish vernacular name as *ajuja imperial* but Mees neglected to mention that Lozano Rey used *Strongylura acus* as the scientific name of the species and listed *imperialis* as a junior synonym. I believe the Commission should follow the law of priority in this case and reject Mees' request.

In conclusion, I believe the International Commission should reject previous requests on needlefish names except as follows:

- (1) to use its plenary powers to suppress for the purposes of priority but not for those of homonymy the following names:
 - (a) *Maris rubri* Bloch and Schneider, 1801, as published in the trinomen *Esox belone* Var. *Maris rubri*;
 - (b) *houuttuyni* Walbaum, 1792, as published in the binomen *Esox Houuttuyni*;
- (2) to place the following names on the Official List of Specific Names in Zoology:
 - (a) *marina* Walbaum, 1792, as published in the binomen *Esox marinus*;
 - (b) *crocodila* Peron and LeSueur in LeSueur, 1821, as published in the binomen *Belona crocodila*;
- (3) to place the following names on the Index of Rejected and Invalid Specific Names in Zoology:
 - (a) *Maris rubri* Bloch and Schneider, 1801, as suppressed under (1) (a);
 - (b) *Houuttuyni* Walbaum, 1792, as suppressed under (1) (b).

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The International Commission on Zoological Nomenclature has been asked to concern itself with the relative status of four pairs of names of four species of Belonidae, for which conflicting opinions exist. The Commission has been asked to officially accept or reject seven of these eight names.

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Collette and Berry (1965, 1966) considered the proper names to be:

- (1) *Platybelone argalus* (described as *Belona argala* LeSueur, 1821)
- (2) *Strongylura marina* (described as *Esox marinus* Walbaum, 1792)
- (3) *Tylosurus crocodilus* (described as *Belona crocodila* Peron and LeSueur, 1821)
- (4) *Tylosurus acus* (described as *Sphyaena acus* Lacépède, 1803).

For the same four species, in the same respective order, Mees (1962, 1964, 1966) used the names:

- (1) *Belone platyura* (described as *Belone platyura* Bennett, 1832),
- (2) *Belone houttuyni* (described as *Esox houttuyni* Walbaum, 1792),
- (3) *Belone marisrubri* (described as [*Esox belone*] Var. *Maris rubri* Bloch and Schneider, 1801),
- (4) *Belone imperialis* (described as *Esox imperialis* Rafinesque-Schmaltz, 1810).

Collette and Berry (1966) petitioned the Commission to reject three names and substitute three others. Our opinion for rejection of two of the names was based on the fact that they were *nomina oblita*. Because Article 23b of the Code concerning *nomina oblita* has been or may be suspended, Collette rephrased the request concerning those two names (in a manuscript that I affirm).

When Mees resurrected and used the specific names *houttuyni* of Walbaum and *marisrubri* of Bloch and Schneider, he did so in specific contradiction of Article 23b of the Code, which stipulates: "(i) After 1960, a zoologist who discovers such a name is to refer it to the Commission . . .," and "(ii) A *nomen oblitum* is not to be used unless the Commission so directs."

Mees' action was also contrary to the intent of the Code—he stated (1966 : 149) that he based his opinion of the correct name of a species "on the principles of priority and clarity of description."

Collette and Berry's opinion as to which name to use for a species is based on the two principles: (1) priority and (2) *stability of nomenclature* (see Preamble to the Code, Articles 75(a), 78(b) (i), and 79, and Recommendations 24A and 74A).

Type specimens apparently do not exist for any of the eight nominal species under discussion. If we follow Recommendation 75A of the Code, it would be difficult to resolve the issue at this time by defining the nominal species through the designation of neotypes. The only method remaining, therefore, for stabilization of these species' names is for the Commission to decide which names are valid.

If the Commission consider the relative status of a name on the basis of clarity of description, conflicting views might be presented *ad infinitum*. This point is illustrated by the following:

(1) After referring to his first, 96-page treatment of the Belonidae as a "Preliminary Revision," presented "in an incomplete form," Mees published a 16-page paper (1964), in which he implied that there was little more to be done in comprehending the taxonomy of the Belonidae. Some of his statements were: "Though, inevitably a few problems remain to be solved . . ."; "The statement that systematically the Belonidae are a well-known group seems justified . . ."; "I believe therefore that the systematic list on p. 325 is almost complete and will undergo only minor changes in future." These quotations are taken out of context, but I feel that this does not change their basic meaning.

Contradictions to this view are apparent. For example, a recent publication by Collette (1966) described a new genus (*Belonion*) of appreciable phylogenetic significance, and two new species.

(2) Two scientists can interpret the same set of facts relating to genera and species in decidedly different ways. Mees recognized only two genera in the Belonidae—*Belone* and *Potamorhaphis*—and stated (1964 : 312): "All other genera proposed are one-character genera . . ." This statement is obviously a faulty piece of scientific information, based on lack of investigation of the abundant characters of generic significance (according to current thought). On the basis of "clarity of description," Mees' selection of proper species names lacks credence because he did not study enough characters in a sufficient number of specimens.

(3) After implying that almost everything about belonid taxonomy was settled, Mees (1966) presented a lengthy reply—over 3,000 words and 35 references—to the comments of Collette and Berry (1966). Both Collette and I (in press, and herewith) have now spent additional research time replying to *his* reply.

In any action that may be taken on these names, I urge the International Commission on Zoological Nomenclature:

- (1) to reject the proposal to suppress *Belona argala* LeSueur, 1821—affirming *Belona platyura* Bennett, 1832 as its junior synonym—on the principle of priority;
- (2) to accept *Esox marinus* Walbaum, 1792—suppressing *Esox houttuyni* Walbaum, 1792, or declining to act on its status—on the principle of stability of nomenclature;
- (3) to accept *Belona crocodila* Peron and LeSueur, 1821—suppressing “[*Esox belone*] Var. *Maris rubri*” Bloch and Schneider, 1801—on the principle of stability of nomenclature;
- (4) to accept *Sphyræna acus* Lacépède, 1803—rejecting *Esox imperialis* Rafinesque-Schmaltz, 1810 or denoting it as a junior synonym—on the principle of priority.

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